

WHAT IS CLAIMED IS:

1 1. A communication entity for communicating messages
2 using a communication protocol, said communication entity
3 comprising:

4 a compressor for compressing a communication message;
5 at least one dictionary in communication with said
6 compressor;

7 a receiver dictionary in communication with said
8 compressor, said compressor retrieving first compression
9 information from any of said at least one dictionary and said
10 receiver dictionary, for said compressing of said
11 communication message; and

12 a sender table in communication with said compressor,
13 said sender table storing second compression information
14 related to the compression of said communication message.

1 2. The communication entity of claim 1, wherein said
2 first compression information is substantially the same as
3 said second compression information.

1 3. The communication entity of claim 1, wherein said
2 at least one dictionary comprises a dynamic dictionary.

1 4. The communication entity of claim 1, wherein said
2 at least one dictionary comprises at least one static
3 dictionary and at least one dynamic dictionary.

1 5. The communication entity of claim 1, said
2 communication entity further comprising:

3 a decompressor in communication with said at least one
4 dictionary and said sender table for decompressing a received
5 communication message, said decompressor retrieving third
6 compression information from any of said at least one
7 dictionary and said sender table for said decompressing of
8 said received communication message.

1 6. The communication entity of claim 1, wherein said
2 communication entity comprises a mobile terminal.

1 7. The communication entity of claim 1, wherein said
2 communication entity comprises a base station.

1 8. The communication entity of claim 1, wherein said
2 second compression information comprises a portion of said
3 communication message.

1 9. The communication entity of claim 1, wherein said
2 compressed communication message comprises an indication
3 message, said indication message indicating compression
4 information stored in said receiver dictionary corresponding
5 to one or more compressed messages previously received by
6 said communication entity.

1 10. The communication entity of claim 9, wherein said
2 compressed communication message further comprises message
3 identification information.

1 11. A communication entity for communicating messages
2 using a communication protocol, said communication entity
3 comprising:

4 a decompressor for decompressing a communication
5 message;

6 at least one dictionary in communication with said
7 decompressor;

8 a sender table in communication with said decompressor,
9 said decompressor retrieving first compression information
10 from any of said at least one dictionary and said sender
11 table, for said decompressing of said communication message;
12 and

13 a receiver dictionary in communication with said
14 decompressor, said receiver dictionary storing second
15 compression information related to the decompression of said
16 communication message.

1 12. The communication entity of claim 11, wherein said
2 at least one dictionary comprises a dynamic dictionary.

1 13. The communication entity of claim 11, wherein said
2 at least one dictionary comprises at least one static
3 dictionary and at least one dynamic dictionary.

1 14. The communication entity of claim 11, wherein said
2 second compression information comprises a portion of said
3 communication message.

1 15. The communication entity of claim 11, said
2 communication entity further comprising:

3 a compressor, in communication with said at least one
4 dictionary and said receiver dictionary, for compressing a
5 transmitted communication message, said compressor retrieving
6 third compression information from any of said at least one
7 dictionary and said receiver dictionary, for said compressing
8 of said transmitted communication message.

1 16. The communication entity of claim 15, wherein said
2 compressed transmitted communication message comprises an
3 indication message, said indication message indicating
4 compression information stored in said receiver dictionary
5 corresponding to one or more compressed messages previously
6 received by said communication entity.

1 17. The communication entity of claim 16, wherein said
2 compressed transmitted communication message further
3 comprises message identification information.

1 18. The communication entity of claim 11, wherein said
2 communication entity comprises a mobile terminal.

1 19. The communication entity of claim 11, wherein said
2 communication entity comprises a base station.

1 20. A communication apparatus for the compression and
2 decompression of communication messages, said communication
3 apparatus comprising:
4 a compressor for compressing a transmitted communication
5 message;
6 a decompressor for decompressing a received
7 communication message;
8 a static dictionary in communication with said
9 compressor and said decompressor;
10 a dynamic dictionary in communication with said
11 compressor and said decompressor;
12 a receiver dictionary in communication with said
13 compressor; and
14 a sender table in communication with said decompressor,
15 said compressor using any of said static dictionary, said
16 dynamic dictionary, and said receiver dictionary for said
17 compressing of said transmitted communication message, and
18 said decompressor using any of said static dictionary, said
19 dynamic dictionary, and said sender table for said
20 decompressing of said received communication message.

1 21. The communication apparatus of claim 20, wherein
2 said communication entity comprises a mobile terminal.

1 22. The communication apparatus of claim 20, wherein
2 said communication entity comprises a base station.

1 23. The communication apparatus of claim 20, wherein
2 said compressed transmitted communication message comprises
3 an indication message, said indication message indicating
4 compression information stored in said receiver dictionary
5 corresponding to one or more compressed messages previously
6 received by said communication entity.

1 24. The communication apparatus of claim 23, wherein
2 said compressed communication message further comprises
3 message identification information.

1 25. A method for compressed message communication by
2 a communication entity, said method comprising the steps of:

3 compressing a first communication message, using first
4 compression information from any of at least one dictionary
5 and a receiver dictionary, to generate a first compressed
6 communication message;

7 storing second compression information related to said
8 compressing of said first communication message in a sender
9 table;

10 transmitting said first compressed communication message
11 to another communication entity;

12 receiving a second compressed communication message from
13 said another communication entity; and

14 transferring said second compression information from
15 said sender table to said at least one dictionary.

1 26. The method of claim 25, wherein said step of
2 transferring said second compression information from said
3 sender table to said at least one dictionary is conditional
4 upon the reception of an indication signal from said another
5 communication entity indicating that said first compressed
6 communication message was received thereby.

1 27. The method of claim 25, wherein said step of
2 transferring said second compression information from said
3 sender table to said at least one dictionary is conditional
4 upon said second compression information not currently
5 residing within said at least one dictionary.

1 28. The method of claim 25, wherein said second
2 compression information comprises a portion of said first
3 communication message.

1 29. The method of claim 25, said method further
2 comprising the step of:

3 decompressing said second compressed communication
4 message using third compression information from any of said
5 at least one dictionary and said sender table.

1 30. The method of claim 29, said method further
2 comprising the step of:

3 storing fourth compression information, related to said
4 decompressing of said second compressed communication
5 message, in said receiver dictionary.

1 31. A method for compressed message communication by
2 a communication entity, said method comprising the steps of:
3 receiving a compressed communication message from
4 another communication entity;
5 decompressing said compressed communication message
6 using first compression information from any of at least one
7 dictionary and a sender table, to generate a first
8 communication message;
9 storing second compression information, related to said
10 decompressing of said first compressed communication message,
11 in a receiver dictionary;
12 sending a second communication message to said another
13 communication entity;
14 receiving a third communication message from said
15 another communication entity; and
16 following reception of said third communication message,
17 transferring said second compression information from said
18 receiver dictionary to said at least one dictionary.

1 32. The method of claim 31, wherein said second
2 communication message comprises an acknowledgment of said
3 receiving of said compressed communication message from said
4 another communication entity.

1 33. The method of claim 31, wherein said third
2 communication message comprises an implicit acknowledgment
3 of the reception of said second communication message by said
4 another communication entity.

1 34. The method of claim 31, wherein said second
2 compression information comprises a portion of said first
3 communication message.

1 35. The method of claim 31, wherein said second
2 communication message comprises an indication message, said
3 indication message indicating compression information stored
4 in said receiver dictionary corresponding to one or more
5 compressed messages previously received by said communication
6 entity.